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10/604,336

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UIF STEFANSSON

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EXAMINER

PATEL, VISHAL A

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/604,336 | Applicant(s) STEFANSSON, ULF | |
| | Examiner Vishal Patel | Art Unit 3676 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/20/07 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-9 and 20 rejected under 35 U.S.C. 102(b) as being anticipated by Horvath (US. 3,643,968).

Horvath disclose a sealing strip consisting of a sealing strip (e.g. 28) made of a substantially incompressible material and having a solid cross-section (e.g. cross section shown in figure 6), the sealing strip exhibits a substantially constant width (width shown in figure 6) along the main portion of its length (length is circumferential or annular, figure 5), a plurality of discrete protrusions (e.g. 36) on the sealing strip, the protrusions have recesses (e.g. 35), the recesses are configured as lead-throughs, the sealing strip exhibits a lower delimitation surface (e.g. surface near 32 that is capable of contacting a first component) and an upper delimitations surface (e.g. surface of 34 that is capable of contacting a second component), the lead-through

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extends through the protrusion in a direction between the upper delimitation surface and lower delimitation surface (figure 6 clearly shows this), a projection (e.g. projection of 36) of the upper and lower delimitations surfaces of the protrusion is parallel with the width (figure 6 shows that 36 is a projection that is parallel to the width between 31 and 30) of the sealing strip are located between the upper and lower delimitation surfaces of the sealing strip, the protrusions each exhibit an upper delimitation surface and a lower delimitations surface and a projection of the upper and lower delimitation surfaces of the protrusion in parallel with the width of the sealing strip are located between the upper and lower delimitation surface of the sealing strip, the protrusion each exhibit an extension in height direction which is smaller than the extension in height direction of the sealing strip (figure 6 shows this), the upper delimitation surface of the sealing strip, the lower delimitation surface, and portions of a side surface of the sealing strip where the protrusions are arranged are designed with the surface perpendiculars of these surfaces in a continuous direction (figure 5 and 6), whereas the direction of the surface perpendicular of an outer side surface of each of the protrusions facing away from the sealing strip changes direction so that the scalar product between the surface perpendicular of this outer side surface and a vector along the longitudinal direction of the sealing strip in this portion shifts sign on both sides of the recess in the longitudinal direction of the sealing strip (this is the case since the protrusion has a continuous curved surface as shown in figure 5), the protrusions each exhibit an outer side surface facing away from the sealing strip and an inner side surface facing towards the sealing strip, wherein the inner side surface is curved and exhibits a maximum radius of curvature R_i and the outer side surface is curved and exhibits a maximum radius of curvature R_y and the maximum radius of curvature of the outer side surface is larger than the maximum radius

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of curvature of the inner side surface (this is shown in figure 5, where the outer radius of 36 is larger than the recess radius), the sealing strip is designed as an endless strip (endless since it is a continuous annular sealing strip), the sealing strip is designed with a longitudinal direction which varies in three dimensions (figures 5-6 shows this) and claims 20 is taught by limitations presented above.

4. Claims 1, 4-6, 8-10 and 13-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Hammi (US. 6,761,360).

Hammi discloses a component assembly comprising a first component part (152b) and a second component part (152a), and a sealing member (e.g. 10'') consisting made of a sealing strip made of substantially incompressible material (material of 10'') and having a solid cross-section (e.g. cross section shown in figures), the sealing strip exhibits a substantially constant width (width of 10'') along the main portion of its length (length similarly shown in figure 4), a plurality of discrete protrusions (e.g. protrusion formed by 46a'' and 48a'' and second protrusion formed by 46b'' and 48b'') on the sealing strip, the protrusions have recesses (e.g. 40'' on each of the protrusions), the protrusions each exhibit an upper delimitation surface (tip surfaces of 46a'', tip surface of 46b'') and a lower delimitations surface (tip surfaces of 48a'' and 48b'') and a projection (e.g. 69'') of the upper and lower delimitation surfaces of the protrusion in parallel with the width (width starting from centerline 52a'' to bottom surface of 12'') of the sealing strip are located between the upper and lower delimitation surface of the sealing strip, the protrusion each exhibit an extension in height direction which is smaller than the extension in height direction of the sealing strip (figure 8 shows this), the upper delimitation surface of the sealing strip, the lower delimitation surface, and portions of a side surface of the sealing strip where the

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protrusions are arranged are designed with the surface perpendiculars of these surfaces in a continuous direction (figures 8-9), whereas the direction of the surface perpendicular of an outer side surface of each of the protrusions facing away from the sealing strip changes direction so that the scalar product between the surface perpendicular of this outer side surface and a vector along the longitudinal direction of the sealing strip in this portion shifts sign on both sides of the recess in the longitudinal direction of the sealing strip (this is the case since the protrusion has a continuous curved surface as shown in figure 8), the protrusions each exhibit an outer side surface facing away from the sealing strip and an inner side surface facing towards the sealing strip, the sealing strip is designed as an endless strip (endless since it is a continuous annular sealing strip figure 7), the sealing strip is designed with a longitudinal direction which varies in three dimensions (figures 7-9 shows this) and claims 20 is taught by limitations presented above.

Regarding claims 10, 13-19 and 21: The sealing strip is capable of being inserted into a groove (e.g. groove 170 that receives the protrusions in figure 9) being present on the first component part (e.g. 152b), the protrusions are capable of facilitate installation and the protrusion are capable of pinched into the groove (this is due to the recesses in the protrusions).

5. Claims 1, 4-9, 10, 13-19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Sumitomo (B1 of form 1449, see attached figure).

Sumitomo discloses a component assembly having a first part, a second part and a sealing member consisting of a sealing strip made of substantially incompressible material and having a solid cross-section, the sealing strip exhibits a substatnally constant width (width of 20) along the main portion of the length (length that is annular shown in figure 1), a plurality of discrete protrusions (e.g. 22) being placed in a groove of the first part, the protrusions have recesses (e.g.

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recesses on both sides of 21), the protrusions having a upper delimitation surface and a lower delimitation surface (top and bottom surface of 22 that face 17 and 19), the sealing strip having an upper delimitation surface and a lower delimitation surface (top and bottom surfaces of 20), the protrusions having a height (height of protrusion that is received in the recess) and the height being between the delimitations surfaces of the protrusion. The protrusions having an inner surface (inner surface adjacent to 17a) having a curvature (curvature of surface of the protrusion facing 20) and an outer surface (surface facing toward 13). The sealing strip is capable of being installed in the groove, the protrusion are capable of being pinched and configure to facilitate installation.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sumitomo (B1 of form 1449). If applicant does not consider that the recesses are formed on both sides of 21, the following rejections applies.

Sumitomo discloses the invention substantially as claimed above (see paragraph 5) but fails to disclose that the protrusion having a lead through the upper and lower surfaces. Nathan discloses a sealing strip having a width, length and height. The sealing strip having protrusions (15). The protrusions being solid and extending from a side of the sealing strip (figure 1). The sealing strip having protrusion (15a) being hollow (as shown in figure 3). The reason of being

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hollow is to provide self-energizing protrusions. It would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the protrusion of Sumitomo to have lead through or make hollow as taught by Nathan, to provide solid protrusion or hollow protrusion is considered to be art equivalent and furthermore to having hollow protrusion make the protrusions self energizing (column 3, line 22).

Response to Arguments

8. Applicant's arguments filed 1/22/08 have been fully considered but they are not persuasive.

Applicants' argument that Horvath does not disclose a incompressible material is not persuasive since this term is a relative term and the gasket of Horvath is incompressible for a range of forces applied to the solid cross-section sealing member.

Applicants' argument that Horvath does not disclose a sealing strip that is made of **substantially** incompressible material is not persuasive because applicant has claimed substantially incompressible material. Furthermore the strip is made of two materials and is incompressible due to the hard material 30 that surrounds the soft material and does not let the strip be compressed.

Applicants' argument that Hammi does not disclose an incompressible material is not persuasive since this term is a relative term and the gasket of Hammi is incompressible for a range of forces applied to the solid cross-section sealing member.

Applicants' argument that Sumitomo does not disclose an incompressible material is not persuasive since this term is a relative term and the gasket of Sumitomo is incompressible for a

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range of forces applied to the solid cross-section sealing member. Furthermore applicant has not claimed any particular material or structure that makes the gasket incompressible.

Applicants' argument to Sumitomo is not persuasive because Sumitomo does disclose recesses (recesses on each side of 21 as shown in figures 2 and 6) on the protrusion.

Applicants' argument that by combining Sumitomo and Nathan the protrusion would allow the sealing strip to pull out of the channel 22 is not persuasive because the size of the protrusion is the same but to provide some resiliency and spring back action one would provide the lead through the protrusion. Furthermore combining the references would provide a protrusion with a size of Sumitomo and having a lead through as taught by Nathan would provide easy insertion and spring back action to prevent the protrusion from dislodging from the channel 22 of Sumitomo.

Applicants' argument to hindsight is not persuasive because as stated in Nathan to have a lead through a protrusion provides self-energizing protrusions (15a).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is 571-272-7060. The examiner can normally be reached on 6:30am to 8:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer H. Gay can be reached on 571-272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/V. P./

Primary Examiner, Art Unit 3676

/Vishal Patel/

Primary Examiner, Art Unit 3676